Algebra II, Fall 2017 Syllabus

Instructor: Anastassia Etropolski
Office: HBH 412
Classroom: HBH 427
Main Text: *Algebra*, Michael Artin (second edition)

E-mail: aetropolski@rice.edu
Class Time: MWF 1:00 - 1:50
Office Hours: TBD
Grader: TBD

Website

The course webpage can be found here:

http://math.rice.edu/~ae22/463_563F17.html

Course Topics

We will cover Chapters 11-16 (except for 13) of the text, plus some material on Gröbner bases. Math 563 will also do some independent reading on representation theory of finite groups.

The course will begin with the definition of a Ring and conclude with Galois theory. This is a lot of material! While it may seem familiar in the beginning depending on your background, it will quickly cover some very technical and subtle topics which are pervasive in mathematics.

Expectations

You are expected to attend each class and do your best to follow the lectures. To get the most out of the lecture, you should look over the notes from the previous lecture in between meetings to fill in any blanks and refamiliarize yourself with the material. The lectures will closely follow the definitions and results in the book but will also attempt to give a big picture overview of each topic and help you gauge which details are important. Not attending lecture really hurts your chances at a deep understanding of the material.

Depending on your background, there may be parts of the course that seem familiar, or even easy. Alternatively, you may find yourself struggling more than others in the class. Do not let either of these deter you! If you find yourself in the first camp, there may come a time when suddenly the material changes to something unfamiliar to you, or there may be some aspect that you didn't understand as well as you thought you did, and you might miss it if you stop paying attention or attending lectures altogether. You should also feel free to come to me and tell me about your background so that I can tailor the homework to your particular situation.

If you are in the latter group, know that neither mathematics nor school is a competition. If you really find yourself struggling, or feel that you are missing some key piece of information that would cause everything to make sense, please come talk to me or find a partner or partners to work with who will encourage, rather than discourage, you.

Homework

Homework will be assigned each week and is due on **Thursdays by 5pm**. If you are comfortable with LaTeX, I would prefer that you type up your homework and e-mail it to the grader by the deadline. Otherwise there will be an envelope on my door (HBH 412) in which to deposit each week's homework. The lowest homework grade will be dropped when calculating your final grade.

You are encouraged to work together on the homework with other students in the class, however you should write up your solutions individually. Moreover, you are not allowed to look up solutions online. Students caught violating this rule will be reported to the Honor Council. The goal is not to get the assignment done and turned in but to struggle and learn. If/when you get stuck, you may come talk to me during office hours so we can work through it together.

Undergraduates enrolled in Math 463 will have a reduced homework load. Mathematics graduate students should enroll in Math 563. This class has a heavy workload, and you should expect to spend a lot of time

doing homework. Math 463/563 is in many ways similar to a language course: you must get lots of hands-on practice to internalize the definitions.

Exams

There will be two midterm exams and a final exam. The midterm exams will consist of both an in-class component and a timed take-home component, while the final will be a timed take-home exam. The tentative dates for the in-class midterms are **Friday, September 29th and Friday, November 3rd**. Please keep these dates in mind when making travel plans, and I urge you to not miss classes in general when possible.

Final Exam: The date for the final exam is not available at this time. It is the policy of the Mathematics Department that no final may be given early to accomodate student travel plans. If you make travel plans that later turn out to conflict with the scheduled exam, then it is your responsibility to either reschedule your travel plans or take a zero in the final.

If an exam conflicts with a holiday you observe, please let me know.

Grading Policy

The grading scheme is as follows:

Homework: 40% Midterm Exams: 30% (15% each) Final Exam: 30%

Course policies & resources

Attendance: You are expected to attend class every day, however there is no penalty for absences.

Honor Code: Students are expected to abide by the Rice Honor Code when working on homework and exams. As stated earlier, collaboration with other students is encouraged on homework, but is not allowed on exams.

Student Accommodations: If you have a documented disability that may affect academic performance, you should: 1) make sure this documentation is on file with Disability Support Services (Allen Center, Room 111 / adarice@rice.edu / x5841) to determine the accommodations you need, and 2) meet with me to discuss your accommodation needs.